

Datasheet: MCA2598GA

Description:	MOUSE ANTI PIG CD117
Specificity:	CD117
Other names:	C-KIT
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	2B8/BM
Isotype:	IgG1
Quantity:	0.1 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1/10 - 1/20
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation (1)	▪			
Western Blotting (2)	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

(1) **Enrichment of 2B8/BM+ BMC population required by depletion of CD3+, 6D10+ and CD163+ cells. Please see [Pérez, C. et al. \(2007\)](#) for details.**

(2) **Enrichment of 2B8/BM+ BMC population required by depletion of CD3+, 6D10+ and CD163+ cells. Please see [Pérez, C. et al. \(2007\)](#) for details.**

Target Species	Pig
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline

Preservative Stabilisers	0.09% Sodium Azide (NaN ₃)
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	Porcine bone marrow cells (BMC).
External Database Links	<p>UniProt: Q2HWD6 Related reagents</p> <p>Entrez Gene: 396810 KIT Related reagents</p>
Fusion Partners	Spleen cells from immunized Balb/c mouse were fused with cells of the Sp2/0 myeloma cell line.
Specificity	<p>Mouse anti Pig CD117, clone 2B8/BM is specific for porcine CD117, also known as c-kit, a 155 kDa type I transmembrane protein with protein tyrosine kinase activity, which plays an important role in early hematopoiesis (Perez et al. 2007).</p> <p>Hematopoietic stem cells (HSC) of bone marrow have multilineage differentiation potential and an extensive capacity for self-renewal. The majority of adult bone marrow hematopoietic progenitor cells are CD117+ and have been used successfully in xenograft transplantation models for long term survival of grafts, without symptoms of graft-versus-host disease (GVHD).</p> <p>Mouse anti pig CD117, clone 2B8/BM recognizes CD117 on a small subset of porcine bone marrow progenitor cells and therefore provides an alternative tool from the previously used c-kit ligand stem cell factor, for the isolation and enrichment of porcine stem cells.</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul.
Western Blotting	Clone 2B8/BM detects a band of approximately 155kDa in enriched porcine bone marrow cell lysates under non-reducing conditions.
References	<ol style="list-style-type: none"> 1. Pérez C <i>et al.</i> (2007) Characterisation of porcine bone marrow progenitor cells identified by the anti-c-kit (CD117) monoclonal antibody 2B8/BM. J Immunol Methods. 321 (1-2): 70-9. 2. Hatzistergos, K.E. <i>et al.</i> (2010) Bone marrow mesenchymal stem cells stimulate cardiac stem cell proliferation and differentiation. Circ Res. 107: 913-22. 3. Escalona, Z. <i>et al.</i> (2014) Molecular characterization and expression of porcine Siglec-5. Dev Comp Immunol. 44 (1): 206-16. 4. Wehman, B. <i>et al.</i> (2016) Mesenchymal Stem Cells Preserve Neonatal Right Ventricular Function In A Porcine Model Of Pressure Overload. Am J Physiol Heart Circ Physiol. Apr

[22:ajpheart.00955.2015. \[Epub ahead of print\]](#)

5. Wehman, B. *et al.* (2016) Intracoronary Stem Cell Delivery to the Right Ventricle: A Preclinical Study. [Semin Thorac Cardiovasc Surg. 28 \(4\): 817-24.](#)

6. Wehman, B. *et al.* (2017) Cardiac Progenitor Cells Enhance Neonatal Right Ventricular Function After Pulmonary Artery Banding. [Ann Thorac Surg. 104 \(6\): 2045-53.](#)

7. Arenal, Á. *et al.* (2022) Effects of Cardiac Stem Cell on Postinfarction Arrhythmogenic Substrate. [Int J Mol Sci. 23 \(24\): 16211.](#)

Further Reading 1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. [Vet Res. 39: 54.](#)

Storage This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2598GA>
10040

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...) [HRP](#)
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
Goat Anti Mouse IgG (STAR76...) [RPE](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),
[FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

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Fax: +1 919 878 3751
Email: antibody_sales_us@bio-rad.com

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Fax: +44 (0)1865 852 739
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Europe Tel: +49 (0) 89 8090 95 21
Fax: +49 (0) 89 8090 95 50
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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M383855:210513'

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